

Rec'd PCT/PTO 09 JUL 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 July 2003 (31.07.2003)

PCT

(10) International Publication Number
WO 03/062573 A1

(51) International Patent Classification⁷: E05F 3/16

(21) International Application Number: PCT/AU02/01639

(22) International Filing Date: 4 December 2002 (04.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PS 0014 18 January 2002 (18.01.2002) AU

(71) Applicant and

(72) Inventor: KRAL, Joseph, Michael [AU/AU]; 30 Ramsay
Road, Five Dock, NSW 2046 (AU).

(74) Agent: SPRUSON & FERGUSON; G.P.O. Box 3898,
Sydney, NSW 2001 (AU).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

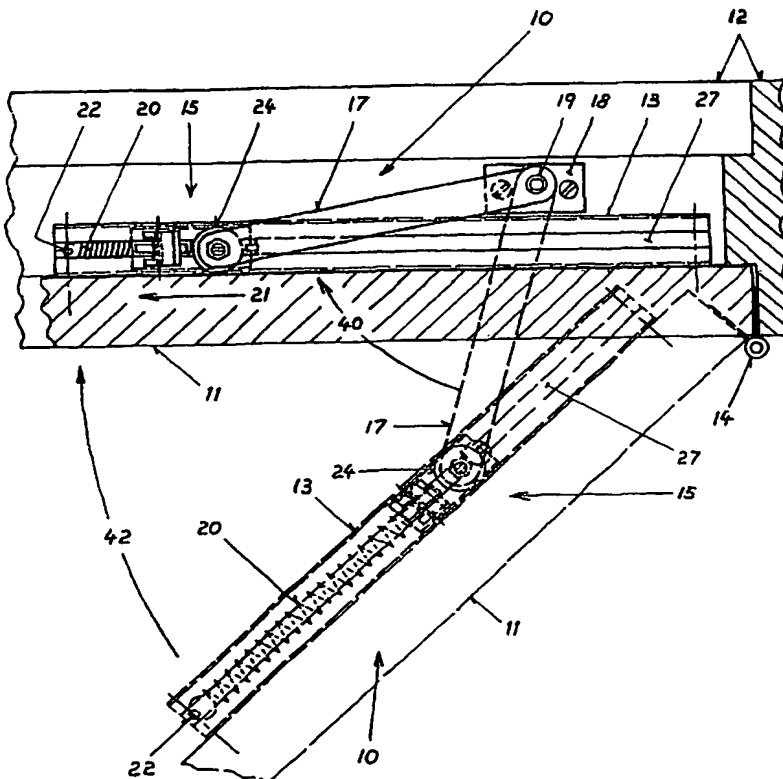
(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK,
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: MECHANICAL DOOR CLOSER



(57) Abstract: A mechanical door closer (10) that includes a spring (20) mounted in a track (13) to urge the door (11) to a closed position. A brake assembly (24) controls that rate at which the door (11) closes. The brake assembly (24) includes a brake hub (25) that has ramp slots (32) that receive balls (33) that engage a braking shell (34) to cause the braking assembly (24) to frictionally engage the track (13) to thereby control movement of the door (11).

WO 03/062573 A1